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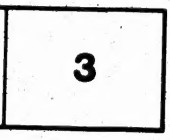

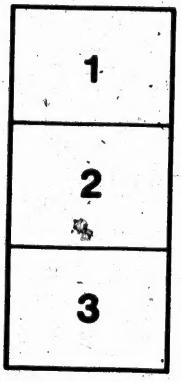

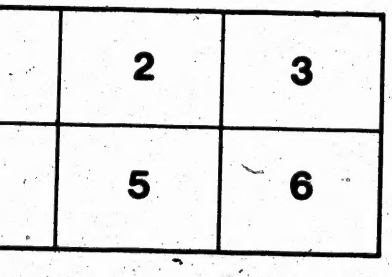

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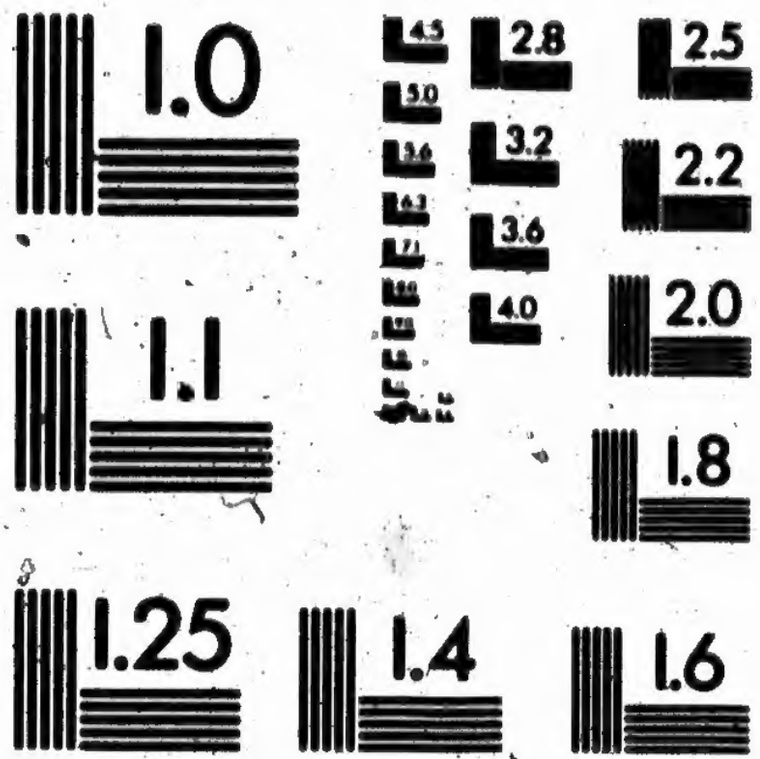

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Jas Wadsworth
Nov 1854

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TABLE

OF

COMBINING WEIGHTS:

FOR

PROFESSOR CHAPMAN'S

COURSE ON MINERALOGY.

University College, Toronto.
1854.

In the compilation of this Table, those substances only have been selected, which have a direct bearing on Mineralogical Science. The first colnmn contains the name of the substance; the second, its symbol or formula; and the third, its combining weight. In the case of compound bodies, the percentage amount of the Electro-negative element is also given in a fourth column.

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TABLE

OF

COMBINING WEIGHTS.

NAME OF SUBSTANCE.	FORMULA.	WEIGHT.	PER-CENTAGE. E-N. EL
ALUMINUM	Al	170.9	
Alumina	$Al^2 O^3$	641.8	46.74
ANTIMONY (Stibium)	Sb	1612.9	
Sulphide of Ant.	$Sb S^3$	2215.15	27.19
Antimonius Acid	$Sb O^3$	1012.9	15.68
Antimonic Acid	$Sb O^5$	2112.9	23.66
ARSENIC	As	937.5	
Sulphides of arsenic	$As S^3$	1539.75	39.11
	$As S^5$	1941.25	51.71
Arsenious Acid	$As O^3$	1237.5	24.24
Arsenic Acid	$As O^5$	1437.5	34.78
BARIUM	Ba	856.78	
Baryta	Ba O	956.78	10.45
BISMUTH	Bi	2660.76	
Sulphide	$Bi S^3$	3263.0	18.46
Oxide	$Bi O^3$	2960.76	10.13
BORON	B	136.2	
Boracic Acid	BO^3	436.2	68.78
BROMINE	Br	999.62	
CADMIUM	Cd	696.77	
Sulphide	Cd S	897.52	22.37
Oxide	Cd O	796.77	12.55
CALCIUM	Ca	251.65	
Lime	Ca O	351.65	28.44
CARBON	C	75	
Carbonic Acid	CO^2	275	72.73
CERIUM	Ce	590.8	
Oxide	Ce O	690.8	14.48
Sesquioxide	$Ce^2 O^3$	1481.6	20.52

NAME OF SUBSTANCE.	FORMULA.	WEIGHT.	PER-CENTAGE. E-N. EL
Chlorine	Cl	443.28	
Chromium	Cr	328.59	
Sesquioxide	$Cr^2 O^3$	957.18	31.34
Chromic Acid	$Cr O^3$	628.59	47.73
Cobalt	Co	368.65	
Sulphides	Co S	569.4	35.26
	$Co^2 S^3$	1339.55	44.96
	$Co S^2$	770.15	52.13
Oxide	Co O	468.65	21.34
Sesquioxide	$Co^2 O^3$	1037.30	28.92
Copper (Cuprum)	Cu	395.6	
Sulphide	$Cu^2 S$	991.95	20.24
Sub-oxide	$Cu^2 O$	891.20	11.22
Oxide	Cu O	495.6	20.18
Didymium	Di	620	
Oxide	Di O	720	13.9
Erbium	E		
Fluorine	Fl	235.43 [237 5?]	
Glucinum (Beryllium)	Be	87.12	
	or	58.08	
Glucina	$Be^2 O^3$	474.24	63.26
	or Be O	158.08	
Gold (Aurum)	Au	2458.33	
Hydrogen	H	12.5	
Water	HO	112.5	88.89
Iodine	I	1586.0	
Iridium	Ir	1232.08	
Iron (Ferrum)	Fe	350.52	
Sulphides	Fe S	551.28	36.41
	$Fe^2 S^3$	1303.31	46.21
	$Fe S^2$	752.02	53.39
Oxide	Fe O	450.52	22.20
Sesquioxide	$Fe^2 O^3$	1001.05	29.97
Lanthanum	Ln	588.0	
Oxide	Ln O	688.0	14.54
Lead (Plumbum)	Pb	1294.64	
Sulphide	Pb S	1495.39	13.43
Oxide	Pb O	1394.64	7.17
Chloride	Bb Cl	1737.92	25.51
Lithium	Li	82.03	
Lithia	Li O	182.03	54.93

NAME OF SUBSTANCE.	FORMULA.	WEIGHT.	PER-CENTAGE. E-N. EL.
MAGNESIUM	Mg	150.19	
Magnesia	Mg_2O	250.19	39.97
MANGANESE	Mn	344.68	
Sulphides	Mn S	545.43	36.81
	$Mn^2 S^3$	1291.62	46.62
	$Mn S^2$	746.18	53.81
Oxides	Mn O	444.68	22.49
	$Mn^2 O^3$	989.37	30.32
	$Mn O^2$	544.68	36.72
MER'Y (Hydrargyrum)	Hg	1250.0	
Sulphide	Hg S	1450.75	13.84
MOLYBDENUM	Mo	575.83	
Bisulphide	$Mo S^2$	977.33	41.08
Molybdic Acid	$Mo O^3$	875.83	34.28
NICKEL	Ni	369.33	
Sulphides	Ni S	570.08	35.22
	$Ni^2 S^3$	1340.91	44.92
	$Ni S^2$	770.83	52.09
Oxide	Ni O	469.33	21.31
NIOBIUM	Nb		
NITROGEN	N	175.0	
Nitric Acid	NO	675.0	74.07
OSMIUM	Os	1242.62	
OXYGEN	O	100	
PALLADIUM	Pd	665.48	
PELOPIUM	Pe		
PHOSPHORUS	P	392.28	
Phosphoric Acid	PO^5	892.28	56.05
PLATINUM	Pt	1232.08	
POTASSIUM (Kalium)	K	489.30	
Potash	KO	589.30	16.97
RHODIUM	Rh	651.96	
RUTHENIUM	Ru	652	
SELENIUM	Se	495.28	
SILICIUM	Si	277.78	
Silica	$Si O^3$	577.78	51.92
SILVER (Argentum)	Ag	1349,66	
Sulphide	Ag S	1550.41	12.95
Chloride	Ag Cl	1792.94	24.72
Iodide	Ag I	2935.66	54.02
Bromide	Ag Br	2349.28	42.55
Oxide	Ag O	1449.66	6.90

NAME OF SUBSTANCE.	FORMULA.	WEIGHT.	PER-CENTAGE. E-N. EL.
Sodium (Natrium)	Na	289.73	
Soda	Na O	389.73	25.66
Strontium	Sr	545.93	
Strontia	Sr O	645.93	15.48
Sulphur	S	200.75	
Sulphuric Acid	SO^3	500.75	59.91
Tantalum (Ta, Pe, Nb)	Ta (Pb Nb)	2296.7	
Tantalic Acid (including pelopic and niobic acid)	$TaPbNbO^3$	2596.7	11.55
Tellurium	Te	801.76	
Terbium	Tb		
Thorium	Th	743.86	
Thoria	Th O	843.86	11.85
Tin (Stannum)	Sn	735.30	
Binoxide	$Sn O^2$	935.30	21.38
Titanium	Ti	301.55	
Sesquioxide	$Ti^2 O^3$	903.10	33.22
Titanic Acid	$Ti O^2$	501.55	39.88
Tungstenum (Wolframium)	W	1183.0	
Tungstic Acid	WO^3	1483.0	20.23
Uranium	U	750.0	
Oxide	UO	850.0	11.76
Sesquioxide	$U^2 O^3$	1800.0	16.66
Vanadium	V	856.89	
Vanadic Acid	VO^3	1156.89	25.93
Yttrium	Y	402.5	
Yttria	YO	502.5	19.90
Zinc	Zn	406.59	
Sulphide	Zn S	607.34	33.05
Oxide	Zn O	506.59	19.74
Zirconium	Zr	420.20	
Zirconia	$Zr^2 O^3$	1140.40	26.31

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